1996

Macroeconomic modelling and appraisal of alternative economic development policies for Thailand

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MACROECONOMIC MODELLING AND APPRAISAL OF ALTERNATIVE ECONOMIC DEVELOPMENT POLICIES FOR THAILAND

This thesis is submitted in fulfilment of the requirements for the award of the degree of

Doctor of Philosophy

from

THE UNIVERSITY OF WOLLONGONG

by

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The University of Wollongong, AUSTRALIA, 1996

AUTHOR'S CERTIFICATION

I certify that the substance of this thesis has not already been submitted for any degree and is not being currently submitted for any other degrees.

I certify that any help received in preparing this thesis, and all sources used have been acknowledged in this thesis

Bhantinee Sootsukon

ACKNOWLEDGMENTS

This thesis was made possible to complete my degree of Doctor of Philosophy in Economics at the University of Wollongong, Australia in 1995. This thesis would not have been completed without the helps of a number of institutions and individuals. In particularly I am indebted to my supervisor, Associate Professor Charles Harvie, whose knowledge and help was very essential in guiding me in the right direction. His continual supports, criticisms, comments, and encouragement were instrumental in developing the depth of knowledge necessary to understand the theoretical context of this thesis. In addition for his meticulous reading, perceptive commenting on the various drafts, enthusiasm over the period of researching and writing the thesis have been a great morale booster. My special thanks also go to my second supervisor, Dr. Ed Wilson, I am also indebted as his comments and suggestions were invaluable in developing of this thesis.

I would also like to thank Associate Professor Robert Castle, whose was always helpful and encourage me in many ways. Dr.Khorshed Chowdhury, Associate Professors Tran Van Hoa, D.P. Chaudri, and A.Levi all gave me valuable suggestions and comments.

Dr.Andrew Cornish, Department of Sociology, Faculty of Arts, University of Wollongong and Ms.Di Kelly assisted in the editing of my English and to them I also extend my thanks. In addition Mr.Pornchai Satravaha from Department of Mathematics, Faculty of Sciences, Chulalongkorn University and Mr.Kompol Thanakitkoses, assisted me with the mathematical and econometrical sides of my work, while Dr.Atifah Thaha, Ministry of Agriculture, Indonesia, assisted me with the simulation analysis, to them I also like to thank.

The friendly working environment in the Department of Economics was also appreciated and it gave me the opportunity to work in a happy and productive manner with both the academic and administrative personnel. Mr.Wolfgang Brodesser assisted me with the use of computer software and hardware. Ms.Sophie Abercrombie and Ms. Julie Chin were invaluable in assisting me with administrative needs and all of the above I again extend my thanks.

My father, Dr.Bhandith Sootsukon, my mother, Mrs.Darunee Sootsukon I am also indebted. They always have provided me with much invaluable loving, caring, and supporting during the period of study in Australia. My special thanks also go to my sister, Miss Dolluedee Sootsukon whose companionship has enable me to maintain my work during the hardest period of developing the thesis. I also wish to acknowledge the support of my relatives and friends, both living in Bangkok and in the far off Province of Nong Khai, whose have been derived of loving and cheering for the duration of my work on this thesis.

My sincere thanks go to these people, without their co-operations this thesis could not have been carried out.

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ABBREVIATION

AD	Aggregate Demand Schedule
ADB	Asian Development Bank
AFTA	Asean Free Trade Area
AIDS	The Acquired Immune Deficiency Syndrome.
APEC	The Asian -Pacific Economic Co-operation
AS	Aggregate Supply Schedule
ASEAN	Association of South East Asian Nations
BM	Buiter-Miller Model
BOI	Board of Investment
BOT	Bank of Thailand
BP	Buiter-Purvis Model
CH	Charles Harvie Model
EEC	European Economic Community
EV	Eastwood-Venables Model
FDI	Foreign Direct Investment
FEER	Far Eastern Economic Review
GDP	Gross Domestic Products
GNP	Gross National Products
HG	Harvie-Gower Model
IFS	International Financial Statistics
IMF	International Monetary Funds
NESDB	The National Economic and Social Development Board of Thailand
NICs	The Newly Industrialising Countries
NSOT	The National Statistics Office of Thailand
NW	Neary and Wijnbergen Model
OECD	Organization for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries
TDRI	Thailand Development Research Institute
VAT	The Value Added Tax

ABSTRACT

The development of a long run macroeconomic model for analysing the macroeconomic consequences of the oil related shocks for a net-oil importing economy such as Thailand is a major objective in this thesis.

The model enables the identification of the ways in which the oil related shocks have been transmitted their effects to the domestic economy, and will enable the exploration of the future shocks to the Thai economy and the policy implications which flow from them. The oil related shocks emphasised in this thesis are that an increase in the price of oil and an increase in domestic oil requirements.

The model developed contained a number of key assumptions. The domestic economy produces only a non-oil output, which can be consumed domestically and is an imperfect substitute for the imported good equivalent. The price of this good is domestically determined. The deterministic framework of the model combined with economic agents possessing rational expectations, is equivalent to the case of perfect foresight. Financial markets are assumed to be in continual equilibrium, whilst non-financial markets are subject to sticky price and quantity adjustment. In addition the model developed emphasised the long run nature of adjustment process, since the oil related shocks will have a long run effect upon the Thai economy. This arises from allowing for physical capital stock accumulation and developments in the current account balance. Finally, the economy operates under a fixed nominal exchange rate, and the government exercises control over the capital market.

The model developed also provides the identification of alternative, and appropriate, governmental policy in response to the oil related shocks, in order to maintain and improve the long run economic development of the economy. Three major alternative policy options presented in this thesis are as: (1) the adoption of trade liberalisation to improve the trade performance, focusing upon a reduction in trade barriers; (2) the expansionary of public infrastructure capital stock to enhance domestic investment and to alleviate the shortage of infrastructures in Thailand, and (3) the change in nominal exchange rate from a fixed to a flexible, and the deregulation of financial markets.

The simulation results suggest that in both cases of the oil related shocks, more public capital spending can produce beneficial effects upon foreign asset stocks, private capital stock, non-oil output, real income, and domestic private sector real wealth. There is however an adverse impact upon the non-oil trade balance. This is offset by an increase in real income, causing a higher demand for imports, and consequently leading to a deterioration of the trade balance. Whilst either the adoption of a flexible nominal exchange rate and perfect capital mobility and trade liberalisation policy can produce a larger depreciation of the real exchange rate, resulting in a noticeable improvement in the trade balance, stimulating an improvement of demand for non-oil output and real income. There are however a number of losers from such policy options. These are the foreign asset stocks, private capital stock, and domestic private sector real wealth.